

Remarks

Applicants have carefully reviewed this Application in light of the Office Action sent 31 October 2008. To expedite issuance of a patent from this Application, Applicants have canceled independent Claims 25 and 26, which Applicants withdrew in the Response filed 11 August 2008. In addition, Applicants have amended dependent Claim 6. Applicants respectfully request the Examiner to reconsider and allow all pending claims.

Independent Claims 1, 9, and 17 are Allowable Over *Keller1-Keller2*

The Examiner rejects independent Claims 1, 9, and 17 under 35 U.S.C. § 102(a) as being anticipated by Hovestadt, Kao, Keller, and Streit, *Scheduling in HPC Resource Management Systems: Queuing vs. Planning*, PROCEEDINGS OF THE 9TH WORKSHOP ON JOB SCHEDULING STRATEGIES FOR PARALLEL PROCESSING (“*Keller1*”) and Keller and Reinefeld, *Anatomy of a Resource Management System for HPC Clusters*, ANNUAL REVIEW OF SCALABLE COMPUTING, Vol. 3, 2001 (“*Keller2*”). Applicants respectfully disagree with the Examiner.

Keller1 fails to disclose, teach, or suggest each and every limitation of independent Claim 1. As an example, as Applicants discussed in the Response filed 11 August 2008, *Keller1* fails to disclose, teach, or suggest ***determining an original subset of a plurality of nodes, the original subset comprising nodes currently unallocated to a job, each node in the plurality of nodes comprising a switching fabric integrated to a card and at least two processors integrated to the card***, as independent Claim 1 recites. Even assuming for the sake of argument that the HPC machines in *Keller1* could be properly considered ***a plurality of nodes***, as independent Claim 1 recites, *Keller1* would still fail to disclose, teach, or suggest any of the HPC machines in *Keller* ***comprising a switching fabric integrated to a card and at least two processors integrated to the card***, as independent Claim 1 recites.

To make up for these deficiencies of *Keller1*, the Examiner asserts, “The specification’s the nodes have the same as they are used and discussed by [*Keller2*]. In *Keller1*, it provides load balancing using an optimizer to the cluster of nodes which is scheduled by a scheduler; the

cluster of nodes is the same as the cluster of node in Keller2. In Keller2, this cluster of nodes has a switching fabric integrated to a card and at least two processors integrated to the card.” The Examiner further asserts, “It should be noted that the Keller1 inherently teaches ‘switching fabric’ as it is in Keller2.” Applicants respectfully submit that, contrary to the assertions made by the Examiner, *Keller2* does not make up for the deficiencies of *Keller1*.

Even assuming for the sake of argument that, “[i]n Keller1, it provides load balancing using an optimizer to the cluster of nodes which is scheduled by a scheduler; the cluster of nodes is the same as the cluster of node in Keller2,” *Keller2* would still fail to disclose, teach, or suggest ***each node in the plurality of nodes comprising a switching fabric integrated to a card and at least two processors integrated to the card***, as independent Claim 1 recites. *Keller2* merely discloses a cluster consisting of two frontend computers, an Ethernet switch, and 32 compute nodes. Even assuming for the sake of argument that the Ethernet switch could properly be considered ***a switching fabric***, as independent Claim 1 recites, *Keller2* would still fail to disclose, teach, or suggest ***each node in the plurality of nodes comprising*** the Ethernet switch, as independent Claim 1 recites. Instead, in *Keller2*, the Ethernet switch is completely separate from the two frontend computers and from the 32 computers, which tends to teach away from the arrangement recited by independent Claim 1. Moreover, even assuming again for the sake of argument that the Ethernet switch could properly be considered ***a switching fabric***, as independent Claim 1 recites, *Keller2* would still fail to disclose, teach, or suggest that the Ethernet switch is all ***integrated to a card***, there being ***at least two processors integrated to the same card***.

Independent Claims 9 and 17 recite limitations similar to those of independent Claim 1.

“To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim.” *Brown v. 3M*, 265 F.3d 1349, 1351 (Fed. Cir. 2001). “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987);

M.P.E.P. ch. 2131 (Rev. 6, Aug. 2007) (quoting *Verdegaal*, 814 F.2d at 631). Moreover, “[t]he identical invention must be shown in as complete detail as is contained in the patent claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); M.P.E.P. ch. 2131 (Rev. 6, Aug. 2007) (quoting *Richardson*, 868 F.2d at 1236). Furthermore, “[t]he elements must be arranged as required by the claim.” M.P.E.P. ch. 2131 (Rev. 6, Aug. 2007) (citing *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)). As shown above, *Keller1-Keller2* fails to disclose, either expressly or inherently, each and every limitation of independent Claim 1. Therefore, *Keller1-Keller2* does not anticipate independent Claim 1 under governing Federal Circuit case law and the M.P.E.P.

Moreover, Applicants respectfully submit that the Examiner has failed to demonstrate properly that “Keller1 inherently teaches ‘switching fabric’ as it is in Keller2.” According to the M.P.E.P., “[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.” M.P.E.P. ch. 2112(IV) (Rev. 3, Aug. 2005) (emphasis in original) (citing *In re Rijckaert*, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993)). Moreover, “[t]o establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency . . . may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *Id.* (quoting *In re Robertson*, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950-51 (Fed. Cir. 1999)). Furthermore, “[i]n relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Id.* (emphasis in original) (quoting *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)). Nowhere does the Examiner “provide a basis in fact and/or technical reasoning” to support the assertion that “[t]he specification’s the nodes hav[ing] the same as they are used and discussed by [*Keller2*]” or that “Keller1 inherently teach[ing] ‘switching fabric’ as it is in Keller2” “necessarily flows from the teachings of” *Keller1*.

For at least these reasons, Applicants respectfully request the Examiner to reconsider and allow independent Claims 1, 9, and 17 and all their dependent claims.

Conclusion

For at least the foregoing reasons, Applicants respectfully request the Examiner to reconsider and allow all pending claims.

If a telephone conference would advance prosecution of this Application, the Examiner may call Travis W. Thomas, Attorney for Applicants, at 650.739.7503.

The Commissioner may charge any fee due and credit any overpayment to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,
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Attorneys for Applicants

A handwritten signature in black ink, appearing to be 'T-T' with horizontal strokes extending to the right.

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Date: 2 February 2009

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